

Applicant respectfully traverses the 35 USC 103(a) rejection. Applicants respectfully contends that (i) one skilled in the art would not be motivated to combine the Nofre and Kataoka references to obtain the inventive process of the present application and (ii) even if motivated to combine the references, the combination does not lead to the invention covered in certain claims.

First, Kataoka teaches away from many of the conditions of the present invention. Kataoka includes a step not included in the present invention. This step is the inclusion of a special screen or perforated plate. While Applicant's claims do not exclude the screen or plate, unlike Kataoka's assertion regarding an aspartame process, the screen or plate are not required under the present process to produce an effective neotame product.

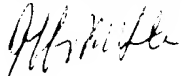
Further, the Kataoka reference stresses the importance of avoiding the use of other ingredients in producing an effective aspartame product, as stated in column 2, lines 20-28: "The addition of a binder such as water, alcohol or the like to α -APM during compaction would be effective for preventing formation of fine powdery α -APM to some degree. However, the presence of, or any increase in the amount of, binder added results in the necessity of a step of drying the α -APM obtained, which is unfavorable from an efficiency and/or industrial viewpoint." The patent further states at column 3, line 61 through column 4, line 4, that any vehicle used along with aspartame for granulation must not be used in an amount greater than the amount of aspartame in the granule. These vehicles are also limited to powders having a particle size permitting uniform blending.

Given the above, if one skilled in the art would combine Kataoka and Nofre, there would be no motivation to add additional components. The Kataoka reference appears to be asserting that aspartame, at least as produced in accordance with Kataoka, is difficult to handle. Thus, even accepting the Examiner's contention that one skilled in the art would look to aspartame art, such art would teach away from the invention claimed in the present application.

Even if the art is properly combined, it does not lead to the present invention as set forth in all of the claims. For example, claims 62-65 teach the addition of a dry binder, with specific amounts detailed in claims 64-65. Claims 84-91 teach specific product applications, with specific additives (each of which is taught away from in the Kataoka reference) required. Claims 71-73 teach specific particle size distributions.

In light of the above amendments and arguments (including those previously set forth), Applicant respectfully requests reconsideration of the claims as amended.

Respectfully submitted,



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Claims-- Marked Up Version

59. (Amended) A process for forming granules of N-[N-(3,3-dimethylbutyl)-L- α -aspartyl]-L-phenylalanine 1-methyl ester, {substantially all of said granules} having a particle size from about 20 mesh to about 200 mesh, said process comprising the steps of:

- (c) compacting N-[N-(3,3-dimethylbutyl)-L- α -aspartyl]-L-phenylalanine 1-methyl ester powder by roller compaction using a roller compactor, said compaction step producing compacts in the form of flakes or chips; and
- (d) breaking up said compacts to form granules using a mill.

60. The process of claim 59, further comprising the step of screening said granules.

61. The process of claim 59, further comprising the step of sifting said granules to obtain granules having a plurality of particle size ranges, said ranges including one or more ranges between 20-60 mesh, 60-100 mesh, and 100-200 mesh.

62. The process according to claim 59, wherein a dry binder is mixed with the N-[N-(3,3-dimethylbutyl)-L- α -aspartyl]-L-phenylalanine 1-methyl ester before the compacting step.

63. The process according to claim 62, wherein said dry binder is selected from the group consisting of pregelatinized corn starch, microcrystalline cellulose, hydrophilic polymers and mixtures thereof.

64. The process according to claim 63, wherein said dry binder is used in an amount from about 0.1% to about 40% by weight of the neotame powder.

65. The process according to claim 64, wherein said dry binder is used in an amount from about 1% to about 20% by weight of the neotame powder.

66. The process according to claim 59 wherein at least one sweetener selected from the group consisting of natural sweeteners and high intensity sweeteners is mixed with the N-[N-(3,3-dimethylbutyl)-L- α -aspartyl]-L-phenylalanine 1-methyl ester before the compacting step.

67. The process according to claim 66, wherein said sweetener is selected from the group consisting of aspartame, acesulfame salts, sucralose, saccharin, alitame, cyclamates, stevia derivatives, thaumatin, sucrose, high fructose corn syrup, high conversion corn syrup, crystalline fructose, glucose, dextrose, polyol sugar alcohols, invert sugar, and mixtures thereof.

68. The process according to claim 59, wherein a bulking agent is mixed with the N-[N-(3,3-dimethylbutyl)-L- α -aspartyl]-L-phenylalanine 1-methyl ester before the compacting step.

69. The process according to claim 68, wherein said bulking agent is selected from the group consisting of dextrose, maltodextrin, lactose, inulin, polyols, polydextrose, cellulose, cellulose derivatives, organic acids, and mixtures thereof.

70. A N-[N-(3,3-dimethylbutyl)-L- α -aspartyl]-L-phenylalanine 1-methyl ester composition having consisting essentially of granules having particle sizes in the range of 20-200 mesh, made according to the process comprising the steps of:

- (c) compacting N-[N-(3,3-dimethylbutyl)-L- α -aspartyl]-L-phenylalanine 1-methyl ester powder by roller compaction using a roller compactor, said compaction step producing compacts in the form of flakes or chips; and
- (d) breaking up said compacts to form granules using a mill.

71. The composition of claim 70 wherein said granules have a particle size of from about 20 mesh to about 60 mesh.

72. The composition of claim 70 wherein said granules have a particle size of from about 60 mesh to about 100 mesh.

73. The composition of claim 70, wherein said granules have a particle size of from about 100 mesh to about 200 mesh.

74. The composition of claim 70 further comprising a dry binder, said dry binder mixed with the N-[N-(3,3-dimethylbutyl)-L- α -aspartyl]-L-phenylalanine 1-methyl ester before the compacting step.

75. The composition of claim 74, wherein said dry binder is selected from the group consisting of pregelatinized corn starch, microcrystalline cellulose, hydrophilic polymers and mixtures thereof.

76. The composition of claim 70, further comprising at least one additional sweetener, wherein said sweetener is selected from the group consisting of natural sweeteners and high intensity sweeteners is mixed with the N-[N-(3,3-dimethylbutyl)-L- α -aspartyl]-L-phenylalanine 1-methyl ester before the compacting step.

77. The composition of claim 76, wherein said sweetener is selected from the group consisting of aspartame, acesulfame salts, sucralose, saccharin, alitame, cyclamates, stevia derivatives, thaumatin, sucrose, high fructose corn syrup, high conversion corn syrup, crystalline fructose, glucose, dextrose, polyol sugar alcohols, invert sugar, and mixtures thereof.

78. The composition of claim 70, further comprising a bulking agent, wherein said bulking agent is mixed with the N-[N-(3,3-dimethylbutyl)-L- α -aspartyl]-L-phenylalanine 1-methyl ester before the compacting step.

79. The composition of claim 78, wherein said bulking agent is selected from the group consisting of dextrose, maltodextrin, lactose, inulin, polyols, polydextrose, cellulose, cellulose derivatives, organic acids, and mixtures thereof.

80. A method of sweetening a food by including in said food a N-[N-(3,3-dimethylbutyl)-L- α -aspartyl]-L-phenylalanine 1-methyl ester composition according to claim 70 in an amount effective to sweeten said food.

81. The method of claim 80, wherein said food is selected from the group consisting of beverages, fluid dairy products, condiments, baked goods, frostings, bakery fillings, candy and chewing gum.

82. A sweetened food comprising a N-[N-(3,3-dimethylbutyl)-L- α -aspartyl]-L-phenylalanine 1-methyl ester composition according to claim 70 in an amount effective to sweeten the food.

83. The sweetened food of claim 82, wherein said food is selected from the group consisting of beverages, fluid dairy products, condiments, baked goods, frostings, bakery fillings, candy and chewing gum.

84. (Amended) A method of preparing a tabletop sweetener comprising the steps of:

- (d) forming a premix of a sweetening effective amount of N-[N-(3,3-dimethylbutyl)-L- α -aspartyl]-L-phenylalanine 1-methyl ester powder, a binding agent and a carrier;
- (e) compacting said premix by roller compaction using a roller compactor, said compaction step producing compacts in the form of flakes or chips; and
- (f) breaking up said compacts using a mill to form granules, substantially all of said granules having a particle size from about 20 mesh to about 200 mesh.

85. The method of preparing a tabletop sweetener according to claim 84, wherein said carrier is selected from the group consisting of dextrose, citric acid, maltodextrin,

dextrose-maltodextrin blends, lactose, inulin, erythritol, sorbitol, sucrose, aspartame, acesulfame salts, sucralose, cyclamate, saccharin, stevioside, alitame and mixtures thereof.

86. The method of preparing a tabletop sweetener according to claim 84, wherein said binding agent is selected from the group consisting of maltodextrin, dextrose-maltodextrin blends, hydroxypropylmethyl cellulose, carboxymethyl cellulose, polyvinylpyrrolidone, sucrose and mixtures thereof.

87. A method of preparing a powdered soft drink mix comprising the steps of:

- (d) forming a premix of a sweetening effective amount of N-[N-(3,3-dimethylbutyl)-L- α -aspartyl]-L-phenylalanine 1-methyl ester powder, a binding agent and a carrier;
- (e) compacting said premix by roller compaction using a roller compactor, said compaction step producing compacts in the form of flakes or chips; and
- (f) breaking up said compacts using a mill to form granules, substantially all of said granules having a particle size from about 20 mesh to about 200 mesh.

88. The method of preparing a powdered soft drink mix of claim 87, wherein said carrier is selected from the group consisting of dextrose, citric acid, maltodextrin, dextrose-maltodextrin blends, lactose, inulin, erythritol, sorbitol, sucrose, aspartame, acesulfame salts, sucralose, cyclamate, saccharin, stevioside, alitame and mixtures thereof.

89. The method of preparing a powdered soft drink mix of claim 87, wherein said binding agent is selected from the group consisting of maltodextrin, dextrose-maltodextrin blends, hydroxypropylmethyl cellulose, carboxymethyl cellulose, polyvinylpyrrolidone, sucrose and mixtures thereof.

90. A process for preparing a blend of granules of N-[N-(3,3-dimethylbutyl)-L- α -aspartyl]-L-phenylalanine 1-methyl ester and a blending agent comprising the steps of:

- (d) compacting N-[N-(3,3-dimethylbutyl)-L- α -aspartyl]-L-phenylalanine 1-methyl ester powder by roller compaction using a roller compactor, said compaction step producing compacts in the form of flakes or chips;
- (e) breaking up said compacts using a mill to form granules of N-[N-(3,3-dimethylbutyl)-L- α -aspartyl]-L-phenylalanine 1-methyl ester, substantially all of said granules having a particle size from about 20 mesh to about 200 mesh; and
- (f) dry blending said granules of N-[N-(3,3-dimethylbutyl)-L- α -aspartyl]-L-phenylalanine 1-methyl ester with said blending agent.

91. The process of claim 90 wherein said blending agent is selected from the group consisting of aspartame, acesulfame salts, sucralose, saccharin, alitame, cyclamates, stevia derivatives, thaumatin, sucrose, fructose, dextrose, polyol sugar alcohols, dextrose, citric acid, dextrin, maltodextrin, dextrose-maltodextrin blends, lactose, inulin, erythritol, sorbitol, stevioside, hydroxypropylmethyl cellulose, carboxymethyl cellulose, polyvinylpyrrolidone, N-[N-(3,3-dimethylbutyl)-L- α -aspartyl]-L-phenylalanine 1-methyl ester and mixtures thereof.